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ANIMADVERSIONS

ON

A LATE TREATISE

ON THE

KINK-COUGH.

(Price One Shilling and Six-pence.)

ANIMADVERSIONS

ERRATA

- Preface, p. v. line 6, *after it, add over.*
 Page 2, line 19, *for tassia, read tassia.*
 7, ——— *for AVICENNA, read AVICENNE.*
 14, line 14, *after an, read external.*
 18, line 27, *for tassim, read tassim.*
 penult. *for Avicenna, read AVICENNE.*
 22, line 16, *after wou'd, add often.*
 23, line 19, *for the, read though.*
 line 20, *after given, put a, instead of a*
 33, line 6, *for n, read in.*
 39, line 5, *for con, read consult.*
 46, line 12, *for irritated, read irritating.*
 47, line 8, *after in, add the.*
 line 13, *read Syr. e maccon.*
 53, line 23, *for when, read whence.*

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8

ANIMADVERSIONS

ON

A LATE TREATISE

ON THE

KINK-COUGH.

To which is annexed,

An ESSAY on that DISORDER,

Nil præter gelidas ausus conferre Cicutas.

L O N D O N.

Printed for R. BALDWIN, and J. BEW, in Pater-noster Row,

MDCCLXXIV.

M O

A L A T E T R E A T I S E

Э Н Т И О

K. I. N. K. - C. O. U. G. H.



La Esz (Sordier)

Nil propter gelidus confus confusus Circulus.

И О Д И О Л

Printed for R. Harwood, and J. Baw, in Paternoster Row.

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P R E F A C E.

AUDI ALTERAM PARTEM.

IT is now well known with what little truth hemlock was recommended as a cure for cancers, Dr. De Haen of Vienna, physician in the same hospital with Dr. Storck, having given us a fair account of this matter.

In a letter to a physician in England, published in the third volume of the Medical Museum, he says, speaking of the Cicuta, " I am now able to explain this matter to you, from the many experiments I have made in
a " confe-

“ consequence of an order received from
 “ high authority. The first thirty pa-
 “ tients it absolutely failed me, but
 “ confiding in the good faith of others,
 “ that they might happen to be such
 “ only as were incurable, I advanced
 “ to make further trials, as well
 “ publicly in the hospital, as privately
 “ in the city and suburbs, to the num-
 “ ber of one hundred and twenty;
 “ but, unhappily for me, after so much
 “ trouble, the result was, that not
 “ one person was cured or relieved by
 “ it; that many grew worse, and
 “ that seven unhappy women with
 “ cancers in their breasts perished un-
 “ der my hands, of whom I could
 “ have saved some of them by the
 “ knife, and in all probability others
 “ might have been preserved a long
 “ time by the palliative methods.”

“ I must own, sir, I am ashamed
 “ of this affair. How did I intreat
 “ those

" those to whom it belonged to use
 " more precaution, and at least to sus-
 " pend for some time the printing of
 " those books that praise the Cicuta,
 " till repeated trials had been made,
 " and by several hands, lest the pub-
 " lic faith should be abused by a
 " premature publication, and the au-
 " thor rendered ridiculous in the
 " face of the universe. But my re-
 " monstrances were fruitless ; and, to
 " my great concern, my best friends
 " abruptly fell out with me, and I
 " have incurred the disgrace of the
 " best of sovereigns." Wherefore,
 three years after, in 1766, he pub-
 lished his *Epistola de Cicuta*, wherein
 he denies the cures which Dr. Storck
 said he had accomplished by this
 remedy, and maintains it, " that
 " many, or most of those very pa-
 " tients Dr. Storck asserts to have
 " been perfectly cured, died while
 " they were taking this medicine ;

" and that there was proved in
 " reality, on a candid enquiry, no
 " more than one that could be said
 " to be cured by hemlock; that al-
 " though five hundred pounds weight
 " of Dr. Storck's extract of *Cicuta* had
 " been sent to different places abroad,
 " yet there has not been received one
 " authentic account of a real cure of
 " a true cancer having been ever yet
 " performed by it in any instance
 " where it was used." Which per-
 fectly agrees with general experience;
 and indeed it is amazing, that it
 should ever have been received as
 a specific in this disorder, when we
 reflect, that upon enquiry, by dissec-
 tion, into the nature of a confirmed
 schirrhus, the vessels are found to be
 perfectly destroyed and obliterated,
 and the whole to be one confused
 mass; wherefore, any medicine cap-
 able of restoring a part thus diseased,
 must have a power of creating a new

set of vessels, and of making a new gland of the old one; and we may as well believe that it has a power of removing any inconvenience from amputation, by creating a new limb, as that it cured a true schirrhus*.

But when we reflect how destitute we were of any medicine capable of curing a cancer, we shall see the reason why physicians and surgeons should seek with avidity after a medicine recommended for this purpose by a physician of eminence

* Those who will take the trouble of examining schirri with a good microscope, will look with indignation upon the accounts he meets with in Dr. Storck's books, and will be convinced, that unless we can discover a medicine that will penetrate into, correct the cancerous virus, and dissolve all the diseased parts into matter, we must still continue to remove cancers, in time, by the knife, or what is more tedious and painful, the caustic, if we think of curing the patient.

and

and character; and finding it give ease in some instances, its use has been continued, not considering that it is an opiate, and that the same advantage might have been received from small doses of opium; and that both opium and hemlock lull the patient into a fatal security, while the necessary and proper methods are neglected, and the disease makes an incurable progress.

Nevertheless, the writer of the Essay on the Kinkcough is a true disciple of Dr. Storck; and if this publication is well received, we have reason given to expect a more extensive account of the virtues of hemlock; wherefore it must be a thankful office to enquire, how far what is already said by this writer merits attention, and whether, as he asserts, " it is a specific in the kinkcough, according to the most proper interpretation of " that

“ that word,” to prevent our being again hastily led, in giving preference to a medicine, perhaps no ways entitled to the encomiums bestowed on it.

Although by shewing that the cases Dr. B—— has given are insufficient to recommend hemlock, and that he himself does not believe what he has said in favour of this medicine to be true, we might answer all the ends proposed; yet, as theory is apt to affect practice, it will be proper to examine his doctrine previous to his cases, and more especially as it will shew this imitator of THESSALUS*,

* The reader who is not acquainted with medical history, must be informed, that THESSALUS lived in the time of NERO, and with madness railed in open invectives against all physicians. He even had the vanity to direct, that the word IATRONICES should be written upon his tomb-stone, in hopes of having it believed, that he was superior in his profession to any physician that ever lived. Plin. Hist. Nat. lib. xxix. cap. 1.

that

that he, like other men, is not quite free from imperfection ; that there must be a great amendment to make, as he expects his name greater in the next century than any man that ever lived, and knowing himself, he may see the necessity of still improving.

DAMN

ANIMADVERSIONS

ON A LATE

TREATISE on the KINKCOUGH.

To Dr. B*****,

SIR,

I HAVE read your Treatise on the Kink-cough, and willingly point out to you some oversights in this work, in hopes of improving your medical knowledge, and thereby enabling you better to support the character you have so long assumed, of being "second in the profession to no man."

Indeed, sir, your stricture upon Doctor FOTHERGILL, in the beginning of your Preface, seems not only to be unnecessary, but a little unlucky to yourself; because, I dare say, you might have gone on in your system-building quietly, and without notice; whereas, from what you have there said, people will naturally be led to make a comparison between the two writers that cannot possibly turn out to your advantage.

B

They

They will at once plainly see that you have obscured and perplexed your subject, by treading in the path he has avoided. Those conversant with medical books will discover, that you have served your HEMLOCK up in a bath of old materials; and that you have not advanced one new observation, or even one new thought, except some new errors, which it was quite unnecessary to add to the theory and practice of physic. Besides, I apprehend, your book will be thought to borden a little upon quackery; while it must be confessed, that the DOCTOR has written like a man of science.

Whoever looks over the 30th article, in the third volume of the Medical Observations and Inquiries, will find that he recommends, from the success of himself and many of his medical acquaintance, a powder composed of crabs claws, and emetic tartar, as a very useful medicine in the tussis convulsiva, and in preference of oxymel of squills and ipecacuanha, which have so often afforded most relief, by emptying the stomach of its contents; and he has mentioned the manner of giving it, and the diet he has found most useful on this occasion. And, surely, there can be no impropriety in his confirming, by the experience of himself and many physicians, the usefulness of a medicine which has been advised by preceding writers. And why is his giving directions about the manner of its being taken, and laying down rules for diet, unworthy of him, when so great a man as yourself has imitated him in these particulars?

Treatise on the Kinkcough, p. 169.

But he says, the remedy he recommends is not a certain cure in all cases; he would not be understood to suppose, that it will alone complete the cure of the whooping-cough; says he, "I know it will not; and that this, as well as any other medicine, is useful or otherwise, just as it is indicated:" whereas you happen not to trouble your head about indications, but recommend hemlock as a *specific* in the disorder under consideration.

A specific in the whooping-cough is a desirable remedy, if it could be obtained; but whether that you have advised is better than the *flesh of fried mice*, which has been in vogue as a specific for the same purpose; may be much doubted; for such is the difference of constitutions, the variations in the same disease, and in the combinations of diseases; that no one remedy has hitherto been found out, capable of invariably curing any one disorder. Quacks, therefore, only talk of curing diseases under various circumstances by a specific: they, indeed, from a poverty of knowledge, recommend one remedy in all sorts of complaints, and bring testimony of their use from every recovery which happens where they are given. You, in like manner, have, for several years, been prescribing hemlock in almost all the cases which have come before you, and now ascribe effects to it of which there is no evidence. I will point out an instance, which may serve for the present. You say, it may be given in the small-pox *with advantage*, because it was taken by an healthy boy and girl, in the beginning of the eruptive fever of this disease, after emptying their bowels by senna tea, and the small-

pox turned out a very distinct good sort. Now, if there had never before been a very distinct good sort of small-pox, in an healthy boy and girl, especially after purging, the hemlock might have gained some credit; but if, upon enquiry, it should be discovered, that a distinct good sort of small-pox is not unfrequent where hemlock is not given, I rather think, no other conclusion can be drawn from these instances, than that, like a chip in pottage, it neither did good nor harm.

Nor can Dr. STORCK shelter you, I am fearful, from the appearance of having made a random experiment, if even what he says be true; for, supposing *hemlock*, in some instances, to have promoted a kindly suppuration where the Peruvian bark failed; yet it does not follow, that it will promote a kindly suppuration in the small-pox; because different kinds of acrid matter require different correctives: though we no way accuse you of making a random experiment by design, but innocently, without knowing that matter in sores and the matter in the small-pox may require different remedies.

However, though you have been a little out in these things, yet your declaration of not being answerable for other peoples experiments with hemlock, unless made with the very preparation you always use*, may screen you from reproach where

* No one will doubt, though Dr. B—— has published his methods of preparing hemlock, that he means, by this caveat, the preparation made by his own apothecary, when they know that he is provided with a sufficient quantity to serve the whole kingdom.

you are not known, in case it is not found so successful in curing the kinkcough as you have represented it to be; for, in justification of yourself, you may have recourse to your old practice, and say, that the blockhead of a compounder scowled the herb in drying, that he stirred the juice with a wooden skewer instead of a bit of hemlock stalk, or that there was certainly an ebullition while it was over the fire; which, if you are as successful as you have been with no better arguments, may effectually stop any clamour. And who can say, though they took the utmost care, that two or three bubbles did not arise? which would be sufficient for your purpose; or you may further insist upon it, that no one can so exactly perform the method you have described, of making experiments upon people that are ill, as yourself. Nor will the prescriptions being written in English, hinder your forcing a trade and carrying on business, as they will be understood by every good woman, who will not have any thing to do, but, as they have already experienced, to consult you, pay their fee, and receive, with directions, in a pot sealed up, your

"agreeable, certain, and expedition cure for the kinkcough."

ARNAUD wrote a book, to prove that GOULARD's extract of lead is the best and most universal topic in surgery, and may very properly be substituted in the place of all others prescribed; that it could only be made by GOULARD himself; and that he, ARNAUD, was the only person in England intrusted with the sale of this preparation; in hopes, no doubt, of getting the whole trade in chirurgical

TAHO ap-

applications to himself. You, in imitation, have written a book, to prove that hemlock is a remedy against almost all diseases; that it may properly be substituted for all others generally prescribed for the kinkcough; and that they must have the very preparation you use.

An anonymous writer lately attempted to explode, by chemical investigation, all the febrifuge powders hitherto invented, in hopes of recommending the sale of his own medicine for the cure of fevers. You have endeavoured to decry, for the same purpose, the practice recommended by other physicians, and as much as lay in your power, by patching together shreds from different authors, have dressed out your performance with a scientific air, in hopes, no doubt, of seeing your doctrine and medicines more greedily swallowed. And if, by these means, you can persuade the public to believe, that whatever has been written upon the subject is erroneous, you may, perhaps, drive a great trade, and we shall then, without doubt, have the whole of your experience of hemlock as a medicine. Nevertheless, we will now see whether your book and list of cures will stand the test of inquiry; and the following are the heads of the chapters in which we shall discuss this matter.

C O N T E N T S.

C H A P. I.

Of the synonyma, description, and prognostics of the kinkcough.

C H A P. II.

Of the nature of the kinkcough.

C H A P.

C H A P. III.

Of the seat of the kinkcough.

C H A P. IV.

Of the causes of the kinkcough.

C H A P. V.

Of the history of bemlock, as a cure for the kinkcough.

C H A P. VI.

Of the cure of the kinkcough, both simple and complicated, supported by your own reasons.

C H A P. VII.

On bemlock, and its preparations.

C H A P. I.

*Of the synonyma, description, and prognostics of the kinkcough.**Of the synonyma.*

The different names by which a disease is distinguished being placed in one view is undoubtedly useful; but your *synonymes*, sir, would have been much more perfect, if you had looked back to an earlier period, and informed us by what name the Greeks and Arabians distinguished what the English call the Whooping-cough; for both HIPPOCRATES and AVICENNA gave it a name. And, besides, there are several other synonyma*, which ought to have been taken into the catalogue to have made it complete; so that, upon the whole, the first is a very superficial section.

* *Ben's trachea, Inguinalis, vomitibus, convulsibus, tussis perennis, infantum, suffocativa, pueriles, chink-cough, chine-cough, king's cough, and many others.*

Of the description.

Nor is your description of the disease, and of the manner of its terminating, as we shall presently shew, less imperfect, as the most alarming and dangerous stage of it is unnoticed, and seems entirely to be unknown to you.

Of the prognostics,

Which have been again and again published, and now eked out by the sagacious information, "that
" a pulmonary hæmorrhage may terminate in a
" consumption, &c. and that the kinkcough, when
" complicated with another disorder, is more hazardous than when single and by itself."

C H A P. II.

Of the nature of the kinkcough.

It seems as unnecessary to prove, that this may be complicated with other disorders, as that light and darkness exist; and the reader will therefore readily believe, that, perchance, you may have seen it conjoined with the measles, peripneumonic symptoms, &c. but if he pays any regard to your book, he cannot coincide with you in opinion, that these varieties merit the most attentive consideration of physicians; because, hemlock it is said is a specific against the kinkcough, both when simple and when complicated with the diseases specified; but you will have wonderful satisfaction, in reading former writers upon this subject,

subject, because you will find yourself supported by their authority concerning your opinion, that it is contagious; that a fever is not essential to it; that it is not an inflammatory disease, and the like: and the only misfortune in this chapter is, that, according to your own account, you have drawn a very erroneous conclusion from these premises, for you do not hesitate to pronounce, that the kinkcough is a nervous spasmodic disease*. That a morbid irritability is the primary, and the spasms only a secondary affection; and yet afterwards you say, "under certain circumstances of the air, &c. the various humours composing the intestinal contents, may undergo an uncommon degree of fermentation. The fermenting mass, by its unnatural stimulus, will produce a vitiated secretion into that bowel. And this additional mixture will probably render the whole more and more active and exalted, till at length there are generated particles of a deleterious nature, operating on the mucous glands of the intestines in particular, whereby that secretion is increased and vitiated, and so the kinkcough is produced †." From all which it follows:

* Dr. Hillary has been before you, and called it a nervous cough and convulsive spasms.

† Instead of miasma being generated in the guts, Dr. Hillary, with more reason, thought, that some peculiar disposition in the air generated miasma, that were received into and infected the habit.

1st, That *the air under certain circumstances*, is the primary cause of the disease.

2dly, That the various humours composing the intestinal contents, are primarily affected.

3dly, That the affection of the mucous glands, is not a primary but a secondary affection, from deleterious particles operating upon them.

4thly, That the kinkcough happens in consequence of a disease thus brought on.

And lastly, That the kinkcough is not a disease, but the symptom of a disease; of all which together with the story of fermentation, we shall take notice of, in their proper place; and shall only now observe, that if you had been so lucky, as to consider the kinkcough as a symptom, instead of a disease, your wonderful penetration in discovering it to be nervous and spasmodic, could not have been disputed; because coughs of all kinds, whether with or without a kink, are symptoms arising from nervous irritation and spasms; and whether by this formal declaration you have not discovered that you are not well versed in the nature of coughs in general, the reader will readily determine.

C H A P. III.

Of the seat of the kinkcough.

Though you assert that arguments are fallacious, yet you are so destitute of plain proof, that you have not produced one fact in support of

of your opinion, that the intestinal canal is the primary seat of the disease.

That particular diseases affect particular parts, is known to every one; but you will find it a difficult matter to prove, "the measles chiefly affect the membrane investing the lungs, the small-pox that of the stomach, and agues that of the duodenum."—That the intestines of children are more irritable than the other parts of the body, will be equally difficult to prove. Dentition renders all the nerves in the body præternaturally irritable; and the colic-pains, and the like, do not seem to arise from the nerves of the intestines being more irritable, but from their being more irritated, by an acid first generated in the stomach. Nor has Dr. Harris *proved*, that almost all the diseases of children depend on an affection of the first passages; or who would believe that the croup for instance, had its seat in the intestines, because *he* said the complaints of infants spring from an acid; their common source; and though it be allowed that a disease in the intestines can affect the whole, or any part of the nervous system, and that worms lodging in the intestines can produce a cough, yet it does not follow, that all coughs happening to children have their primary seat in the same place; we could incontestably prove, that a violent cough took its rise from an inflammatory tumour in the hand; but, are we therefore to conclude, that the kinkcough ever had its primary seat in this member of the body?

Vomits being more serviceable, when they render the body soluble, only seems to prove, that the disease is not confined to the stomach; and if it be true, that such patients bear the action of vomits better than purges, the only conclusion that can be drawn is, that purges weaken by making a general drain from the whole body, whereas vomits do not cause so great an evacuation.

Nor is the king's evil, and rickets, being the consequence of an *obstinate* kinkcough, any more to your purpose. You acknowledge the king's evil to have its seat in the conglobate glands; and supposing, (though it is far from being certain) that those of the mesentery are first affected, yet this is no clear proof in your favour, this disease being in another bowel. And can the kinkcough *simply considered*, any more produce the king's evil, than the king's evil the kinkcough? The rickets have followed the small-pox, which you say is a disease of the stomach; and any disorder at a certain period in life, that greatly weakens and relaxes the fibres of children, pre-disposed to the rickets, will bring them on. You confess, that both these disorders are in consequence of the kinkcough's continuing a long time, and to the intestines thereby losing their contractile power. And we also think, as these disorders never follow the kinkcough, till it has long continued, that they are brought on by its obstinacy causing a general weakness and relaxation, in habits previously disposed to these complaints,

plaints, and not to its primary seat being in the intestines.

But surely you are much mistaken about your fourth, and what you think your most powerful argument, p. 25. For if we are to conclude from the periodical returns, that the kinkcough and intermitting fevers have both their seat in the same place, you prove that instead of the intestines, the kinkcough may have its primary seat in the eyes, or in one of the teeth, because you have given us a clear instance of an intermittent thus situated; for the black stools we imagine were owing to their being tinctured with extract of bark; and we should have received equal information about the nature of the disease, if we had been told that the patient had black stools after eating bilberries. If you did not think the seat of this intermittent to be in the tooth, why did you direct it to be drawn? and are not local intermittents common? We believe that intermitting fevers have often their seat in the abdomen, yet we think the opinion of their proximate cause being in the liver, mesentery, &c. more probable than that it lodges solely in the guts; nor do your two cases prove the contrary. You have before said, p. 23. that an enlarged belly and colic are the symptoms of obstructed glands in the mesentery; and might not the pain in the first boy's belly, p. 26. arise from a similar cause, and the cure chiefly to be owing to the fomentation removing the obstruction, because his colic was cured before the worms were entirely eradicated? Might not the cure of the

the second boy be accomplished by the purges producing the same effect; and would the belly have been large and hard, if the intestines only had been diseased?

In regard to the intestines being the most likely place for generating an infectious disease, we must observe, that however plausible the arguments in favour of this opinion may appear, they are very far from being conclusive; and though the dysentery and putrid fever, &c. spread by contagion, yet it is not a clear point, that the miasmata bring on the succeeding disease by first affecting the alimentary canal. The viperine poison, though deadly when infused into a wound, taken by the mouth produces no bad effect; nor will the variolous matter create a disease swallowed in the same manner, provided in its passage it touches not an excoriated part, though even a single atom is fully sufficient for the purpose when the cuticle is removed, and it comes in contact with the absorbent vessels, seated on the surface of the body. A poor lad had a large tumour in his mouth, arising from the upper jaw, which was very foul, and from which a large quantity of very offensive putrid matter was swallowed in the night-time, when he was asleep. It purged him gently; and, at the end of three weeks or a month, his blood seemed to be dissolved by the vibices which appeared in the skin; yet he never had the least fever, though he lived at least six or eight weeks, and at last died of extreme weakness; whereas, had the same quantity of matter been absorbed from an ulcer, a colliquative

liquative fever would soon have been the consequence. From all which we would infer, that the juices in the primæ viæ correct and render less active infectious matter; and that this does not seem to be the only way by which infection is communicated. The opinion that the miasms which propagate infection, enter the habit by the lymphatics in the lungs, and other absorbents, seems more likely to be true; for in this way, by such time as the disease makes its appearance*, they will in all probability have contaminated the bile, and the variety of humours blended in the intestines.

But to return to the resemblance betwixt the kinkcough and intermitting fevers, which seem to arise from an accumulation and discharge of phlegm; for when the stomach is unloaded by coughing and vomiting, the patient becomes easy till a fresh quantity of phlegm is collected in the stomach sufficient to excite another fit of coughing; which, surely, notwithstanding your arguments to the contrary, is a full proof, that this bowel is immediately affected, and that unloading it is the cause of the intermission. You indeed think differently; but may we not suppose, that in intermitting fevers obscure intermissions are rendered distinct, by those medicines which remove the offending cause from the affected part? And

* When we inoculate for the small-pox, it is evident that the variolous matter enters the intestines before any fever comes on, by its destroying worms. See the following essay.

why then are we not to believe a disorder, that has periodical returns, to be seated in the stomach, because vomiting affords relief?—Why truly, say you, “It would seem that the interfering cause, “a foulness of stomach, being thus removed, the “pure intestinal symptom of intermission becomes “evident and distinct:” which is a most futile argument, because you have not in one instance proved, that intermittents are seated in the intestines; and we may therefore conclude, that WALDSCHMID, when he said this cough proceeded from the stomach, was guided by common-sense, which you, sir, have deserted; and through the whole of this chapter have had recourse to mere conjecture and hypothesis.

C H A P. IV.

Of the causes of the kinkcough.

How full and true your description of the kinkcough is, we have already observed, and shall farther make appear; and how far your observations have established the true seat of the disease, let every man judge. However, you have given us a clear instance, that you remember what you learnt at lecture, in so very learnedly explaining what is the predisposing, and what the proximate cause of a disease; and to be sure it required a masterly hand to point out that a disease is present, while its cause is present: but we do insist upon it, that a disease often remains after its proximate cause is removed. But wonderful information must

must accrue to the public from their now being shewn the necessity and use of being acquainted with the cause of a disease; we may add, when it can be accomplished; “ but so great are the difficulties “ of tracing out the hidden causes of the evils to “ which this frame of ours is subject, that the “ most candid of the profession have ever allowed and lamented how unavoidably they are in “ the dark;” and the abortiveness of your attempt in this respect, is one clear proof how justly they have reasoned.

Few or none will think with you in regard to the kinkcough being peculiar to childhood, because it sometimes seizes grown people; and it may with truth be affirmed, that the story about the irritability of children, both in health and when diseased, has been long known and applied; and certain it is, that this disorder more commonly affects children, without being preceded by any other disease.

You say, “ an enumeration of the effects of “ the specific miasms, which produce the kink- “ cough, will sufficiently point out their true nature;” but not such a perplexed enumeration as you have given us. In one place you assert, p. 51. that they act upon the nervous powers, and increase the irritability of the system; a few lines after, “ that as far as your senses can discover, they act chiefly on the mucus;” and then again, a few lines below, you say, “ it appears that the kinkcough answers to the definition of pestilential disorders, &c. since its “ miasms

" miasms are contagious, and act chiefly on the
 " nerves;" and lastly, after this confused ac-
 count, " you hope you have sufficiently cleared
 " up the nature of the contagious particles." But
 in what manner? For do not miasms, as different
 in their *nature* as possible, act upon the nervous
 power, and increase the irritability of the system,
 of which the miasms producing the small-pox,
 measles, &c. are an instance? or why do they
 produce different diseases? Suppose what you
 have said to be true, it only proves that they have
 an irritating property, which is far from explor-
 ing their *nature*: but all these little mistakes every
 considerate man will excuse, when he reflects that
 you do not pretend to go deeper into this matter
 than the limits of your understanding will
 permit.

But to have been consistent with yourself, you
 should have omitted enquiring into the origin of
 the contagious particles which give rise to the
 kinkcough, as this is certainly wading out of your
 depth. Indeed in this inquiry you set out very
 awkwardly; for not having examined into the mat-
 ter yourself, you are led into a mistake by copy-
 ing a former writer, in regard to our not having
 any very early account about this disorder; for
 Hippocrates prescribed *ad tussim pueri* *, and
 Avicenna describes, according to the Latin trans-
 lation, the method of curing the *tussis infantum* †.

* *Ennos; vaudis nota finem lib. Morb. Mulier.*

† *De Aegritudinibus quæ infantibus accidunt, cap. iii.
 lib. i. Fien. Dort. 1. p. 157. vol. i.*

No conclusion, therefore, can be drawn as to the place of the growth of these particles, except it be true that they are bred in people's guts; and they then may be natives of Europe, and every other quarter of the globe. Even when they revisited Barbadoes. According to your account they must escape from the guts, and we may readily suppose that some passenger carried a belly-full over, and letting fly as soon as he landed, infected the whole island. Indeed Dr. Hillary observes, that the hooping-cough appeared in Barbadoes in the month of July 1753, after a good deal of rain, often with thunder and lightning, though the intermediate days were hot and dry; and he could not find upon the strictest enquiry, that any child or elder person brought it thither, which you may conclude is in favour of your doctrine; but you must be told, that fermentation destroys the cohesion of all bodies upon which it acts. That tough viscid phlegm is always discharged in the first stage of the kinkcough; that there is, therefore, no fermentation in the case, and that the whole of what you have said about creating deleterious particles in the guts is of course chimerical, and seems to be no better supported than the opinion that Spanish mares become pregnant by ascending high mountains, and swallowing with open mouth the western wind.

If so, the remainder of what you have said in this chapter, except its being sometimes propagated by contagion, falls to the ground, and requires no farther comment; though, I must confess,

self, I much admire your arguments against the removal of children in this disorder; because, if they were removed from Derby, and its environs, the writing of your book might not answer the end designed; and yet it may be difficult to disprove the truth of the opinion, that pure air assists in recovering the patient. For, if "the air under certain circumstances is the primary cause of this disorder," how comes it to pass that the kinkcough does not depend upon the state of the atmosphere, like many epidemic diseases? Will not an air capable of producing the kinkcough be a constant *fomes morbi*? and, consequently, removing the patient to a place where the air is pure must be rational at least,

And, though you have not only *a priori*, but likewise *a posteriori*, come to the same determination, yet I question whether you have satisfactorily cleared up this matter; for the mucous glands of the stomach, and those of the intestines, are both of the same kind; and will it be believed that the air *under certain circumstances*, when taken in by the mouth, can pass through the stomach without affecting it; and is not the stomach loaded with phlegm from the beginning? So that you have no way of maintaining your ground in regard to the *guts* being the *primary seat* of this disease, unless you give up your *prior*, and adhere to your *posterior* arguments, by proving that the *fomes morbi* doth not enter by the mouth but *per partes posteriores*.

C H A P. V.

Of the history of hemlock, as a cure for the kinkcough.

What you say, sir, has been asserted about the cure of the kinkcough, may with equal truth be asserted of every disorder known, as we have not a certain cure for any of them. Where there is a multiplicity of indications in diseases (for methods of cure are not indications), it is impossible for them all to give way to specific treatment; for various circumstances will always require a combination of various remedies. Nor is the unsuccessful treatment of the kinkcough the reason why Dr. Willis's observation, "that old women are oftner consulted in this disorder than physicians," holds true in our own times; for people seldom apply to physicians, on account of the expence, as they do not apprehend danger, and they know the disease will commonly get well of itself in time. Nevertheless, if you can make people believe that we have as yet no certain and effectual cure for the kinkcough, nor any one medicine that ought to be used in many cases that occur, that every method hitherto followed is at best but a palliative, and that hemlock is a specific in every case that can happen, your business is done.

But whether your being convinced that the disease is spasmodic, and that hemlock is one of the best antispasmodics, will assist in recommending it to the notice of practitioners in medicine, may

may be much doubted; because, as we have already observed, what you have said tends to persuade other people, that the disease is not spasmodic, but a morbid alteration of the intestinal contents; and it will easily be discovered whether medicines that clear the *primæ viæ*, and lessen irritability, or a medicine which acts as an antispasmodic only, are most likely to prove palliatives.

However, though your reasoning may have perplexed this matter, and though you may be mistaken about the nature and the seat of the disorder in question, yet it does not follow that you have not found out a remedy that will cure it, the use of medicine being often discovered by accident. The Indian who discovered that the bark would cure an intermitting fever, knew nothing probably of the nature of the disease; and *as you have confined your practice in almost all diseases to the use of hemlock*, you may by chance have found out a cure for the kinkcough; and we must, therefore, see whether the evidence you produce will support the character you give it.

A specific should be able to cure the disease to which it is appropriated without any assistance; and, in order to have a clear proof of the efficacy of any medicine, it should be given simply and alone; and it is therefore impossible to say how far hemlock, and how far the other remedies might contribute to the cure in your first and fifth cases. Cantharides have always been found of great efficacy in the whooping-cough, whether taken inwardly, or outwardly applied; nor have purging medicines,

medicines, especially emetic tartar, &c. by clearing the *primæ viæ*, been found less serviceable.

Who can, therefore, say in Mrs. Hodgkinson's case, that the blister and emetic tartar did not attenuate and remove the viscid phlegm, which was manifestly the cause of the cough? Hemlock might then be serviceable, by acting as an opiate, and allaying that increased irritability, which the cause of every cough in a greater or less degree produces, and which often will occasion frequent coughing for some time after the primary disease is removed.

A. B. was better from the application of the first blister, and the effects of his purging mixture, which brought away slime, before hemlock was given. Lancing the gum too would lessen the increased irritability of the whole habit, especially the second operation, which let out three teeth at once, and yet the hemlock was constantly given: we find he coughed a good deal till a second blister was applied, *and then* the fits were much milder, and returned scarcely once in two hours. Besides, the bowels were unloaded of slime *daily*, either with syrup of roses or manna; he was vomited with oxymel of squills, which rendered his breathing free; and after five weeks and four days had elapsed, in which time six teeth were bred, (and I suppose came to light) the patient was well. And it may be asked, with what pretensions could it be said in the third corollary, that "that hemlock certainly prevented "spasms, and probably convulsions, in this child?"

Must not there be a strange partiality in favour of hemlock to make such a conclusion; and will not corollaries thus drawn lead to error?

- But to go back to your writing to your friend in Scotland, p. 63. we may observe, that it was unlucky that the children were got well before your letter of advice arrived, otherwise hemlock might have got the whole credit of the cure; and, though this anecdote does not throw great light upon the subject, yet perhaps it may forestall any claim a pretender may make to hints given; and you will thereby avoid that censure you have before experienced*, in publishing as your own a method of curing the stone by injection, when the hint came from Dr. Whytt.

The second case not being insisted on as evidence, I pass it over; and the third does not seem much to your purpose, because hemlock was not given by itself; and who will be hardy enough to say, that lemon juice, salt of tartar, and syrup of sugar, did not alter the properties of this remedy? and that the good effects were not produced by the manna, and a medicine very different from hemlock when given alone? But the complete recovery seems to have been accomplished, as often happens in this disease, by time, as nine or ten weeks elapsed before the patient was in perfect health.

Indeed, you inform us, that she was in a manner well in a much shorter time; but this we

* In the Reviews.

imagine

imagine was nothing more than the natural decline of the cough, which always happens after a certain period.

You say, " a fever is not essential to the kink-cough ;" but in the cough following the measles, a fever, with a white tongue, quick pulse, and sediment in the urine; is a common attendant : and are not this fever and cough frequently increased and renewed by eating things of hard digestion, or upon taking a slight cold? whence there is reason to imagine, that a great part of this child's illness was owing to acrid matter remaining after the measles, upon, and irritating the lungs. It is common for saline medicines, without the assistance of hemlock, to make the phlegm looser in the cough thus produced; and this hectic fever and cough have often been cured by the same remedies, and gentle purging, in a short space of time : so that, upon the whole, you may see this is not so clear a case in your favour as you have imagined.

The fourth case too, communicated to you by Mr. Smith, is liable to the same objections, as not hemlock alone, but a medicine of a very different nature was given; and from a serious perusal of the first five cases, the reader will judge, whether you had any good reason to be *perfectly* convinced that you had discovered " an agreeable, certain, and expeditious cure for the kinkcough : " when, not having patients enow of your own, you wrote to Mr. Yorke to furnish you with some for your purpose,

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But the first of these cases will do you very little service; for, upon enquiry, the child did not take the medicine except a few days. The mother not dreading the event of the disorder, did not chuse to give it her by force, though it was regularly brought every evening about six o'clock, to be taken next day, but it was constantly thrown away. The mother says " the smell of the *hum-lucks* scented the whole house, and was so very disagreeable, that the child could not bear it; and, she believes, it would have thrown her daughter into fits if she had persisted in the use of this medicine." She, therefore, bought manna * at different places, with which she kept her bowels open, and the disorder terminated, as often happens, in the space of six weeks.

It is very common for the lower class of people to omit taking medicines, even when they are to pay for them, because they are unpalatable; and, I have so often discovered, that the medicines during a whole illness have been secreted, and not taken, that I am very cautious in ascribing effects to them, unless I am very certain they have been given. The parents of these children had not thought of calling in any assistance, but were sent to, and desired to make trial of some medicine that should be given them; and common civility obliged them not to refuse the offer; but when we reflect, that giving medicines to children is always

* The mother says, " those days she was purged with manna she was much better than when she took the hum-lucks."

troublesome, and requires great resolution to accomplish; that the common people do not look upon this disorder as dangerous, and that they have no doubt of it in general going off of its own accord, it is reasonable to imagine, that they would not be equally vigorous with the prescriber in pursuing his method of cure, otherwise the parents of HELE * would not have disused the bark shift which was given her; and, in my opinion, I think none of these cases are to be depended upon, where either the prescriber or apothecary did not see the medicines given. However, supposing them to be taken, the case of ELIZABETH and JOHN PAGE are exceptionable, because lemon-juice and salt of tartar were joined with hemlock; besides, ELIZABETH PAGE had the disorder from first to last near seven weeks; and does not it often terminate of itself in this time? We may conclude, that JOHN PAGE had the disorder very slightly, otherwise he would have kinked oftener than twice in the night.

* Mary Green was not cured.

Mr. Smith, for all that we know, joined juice of lemon and salt of tartar with hemlock, in the manner he had before done; and his cases, as they at present stand, are therefore no evidence.

Thomas Newdale, who had the disorder near seven weeks, had sal polychrest and magnesia given to assist the cure.

* See Treatise on the Kinkcough, p. 159.

Magnesia and sal polychrest were also given in MARY HELE's case, but she had no permanent relief till she wore a bark shift; and after taking hemlock a month, a violent diarrhea, with purulent stools streaked with blood, and a tenesmus came on, and she was very restless, and vomited up her food; *but, upon the hemlock mixture being omitted,* and three drops of laudanum being given, and repeated every night and morning, her looseness was abated and cured, she had good nights, and *her cough, which the hemlock could not subdue,* was intirely removed; and, we are told, she got well: but of this hereafter.

WILLIAM TOPLIS had a variety of medicines joined to hemlock, notwithstanding which he died, though, it is said, his kinkcough was cured a few days before his death, and at a time when he appears to have been very ill; but in the following Essay we shall have occasion to take notice of hemlock, and we shall then review this case.

Mary Langley had the disorder in all seven weeks, and magnesia and nitre were joined with hemlock; and, upon the whole we may observe, that there are only seven cases out of the twenty, in which hemlock can possibly have all the credit of the cure, because other medicines were joined along with it; and if it was imagined they would give no assistance, why were they prescribed? And even in all these seven cases, will not the sugar or sugar-candy rob the hemlock of its honour and glory,

glory, because sugar, vegetable juice, and water will ferment? I know that this hemlock mixture will, in a few hours become ropy, and afterwards a fermentation ensues, and it becomes vinous; and, though it may, like cowslip wine, retain something of its narcotic quality, yet it will be greatly altered. Perhaps it may be said, that the mixture being to be taken in the space of twenty-four hours, it has not time to ferment; but in the heat of May and June, when these children were ill, every body knows that this alteration will take place in a very few hours. Besides, ANNE ARCHER and ROBERT TRUSSEL were ill five weeks.

SAMUEL ARCHER one month.

ANCOR SARAH WADDLE and ELIZABETH TRUSSEL about two months. And you yourself are so well satisfied that these cases are not satisfactory, that you think it necessary to explain some circumstances in some of them:

We join you in opinion, p. 157. that the fifth case may be as remarkable as any of the rest, and yet not very remarkable in favour of hemlock. Any man must be strangely biased in favour of this medicine, who could conclude, when so many other medicines had given relief, that it saved this patient's life; and from what has been said, it is plain you were mistaken in ascribing the cure of *all* the six patients to hemlock. But you seem to be easily convinced, otherwise you would not have attempted to persuade others it was effectual where the disease was not cured; for you have

artfully numbered Mary Green among those made well by this remedy, though her case proves the contrary; and her mother says, she did not get well of at least six months after she had quite done taking this medicine. You say, " I saw all the four patients cured by Mr. Yorke (Mary Green being one of them), and some of them before they were well; and I enquired very minutely into their several symptoms; and this was only that I might have every possible testimony for facts, which I desired to deliver to the world with the utmost consciousness of their reality." Surely this is straining a point, to say no worse of it, to give credit to hemlock; and how are we to believe you, when you thus solemnly attempt to impose upon us?

Curing Thomas Newdale twice in a fortnight was really extravagant; once well done would have been quite sufficient, as the disorder seizes a person but once in his life. But notwithstanding what may have been said to the contrary, (see case 17) **HELE** does not seem to have been cured once, Poor child! She indeed suffered much hardship, seemingly from being trifled with, when the use of the bark was so early indicated*, and if this remedy had been sooner given, she now probably

* You knew an ague had been cured by the bark when complicated with the kinkcough, (see Treat. Kink. p. 172.) why then was the use of this medicine deferred near seven weeks? and was not giving hemlock in this instance experiment making? because an *approved remedy* was at hand. See *Home Princip. Med.* p. 122.

might have been numbered among the living instead of the dead, as her constitution might not have been ruined, and she might have been able to bear a blast of wind. But you were consistent with yourself in adhering to your opinion, that hemlock does not only cure the kinkcough, but the ague also; and the consequence was, that she together with *Toplis* are in heaven; and, it may be insisted on, that hemlock did good service in these instances, by standing in the place of proper remedies, and suffering the disorder to carry these infants into happiness.

You see, sir, how willing I am to help you out at a dead lift; and in the Essay annexed, the looseness which probably assisted in carrying *Hele* to her grave, will be accounted for, without having recourse to conjecture, and the necessity of killing and destroying worms for the purpose; though I admire your ingenious theory of these vermin, being obliged by uncommon heat to seek their way out of the body by a voluntary effort, in the same manner, I suppose, as people make a voluntary effort to get out of a window, or a back door, when a house is on fire. But there is another way of explaining this matter; and the reader will presently judge whether it ought not to have been known to one who is a fellow of a royal college of physicians.

But after all, I find you have been endeavouring to make us give credit to what you yourself do not believe; for, if you had been perfectly convinced, that in hemlock you had discovered a
certain

certain and expeditious cure for the kinkcough, you would not in the last case but one, " have
 " been perpetually wavering between the influ-
 " ence of a great name, and the suggestion of
 " your own reason and experience." From
 this declaration it is evident, you wanted in-
 ward conviction from plain proof; for a man
 must be an errant fool indeed, who gives up a
 plain matter of fact, of which he is perfectly con-
 vinced, to the influence of any name how great
 soever. And we ask the opinion of those uncon-
 cerned in this matter, whether they think you were
 perfectly convinced or not?

Your laying the death of HELL to the miscon-
 duct of her parents, and excusing the want of
 speedy success to a smoaky house, &c. in TOP-
 LIS's, LANGLEY's*, and WADLEY's cases, will
 avail but little in favour of your remedy, when
 it is called to mind, that you have long insensibly
 fallen into this way of excusing yourself by the
 most trifling evasions, when, having promised a
 recovery, death, by victory, has shewn the feeble-
 ness of the weapons by which you endeavoured to
 keep him at a distance.

From the whole it must appear to every un-
 biassed reader, that hemlock has not always been
 successful in the kinkcough; that other me-
 dicines were required, both when it was simple
 and when the disease was complicated, and that

* This is a curious excuse, it being confessed, that they
 were not confined within doors, p. 161.

you have said more in the praise of this remedy than is true.

CHAP. VI.

Of the cure of the kinkcough, both when simple and complicated, supported by your own reasons.

In this chapter it was reasonable to expect, that the different indications in all the varieties arising from complication with other disorders would have been pointed out; but if we except the measles, in which you have never given this remedy, and lancing the gums in dentition, however complicated the disorder, there is but one indication which is to give hemlock; and giving hemlock, we imagine, is no indication at all, but we guess what you mean. And this principle, I observe, you first lay down when you speak

Of the simple kinkcough.

And yet, two pages, after you forget yourself, and recommend a variety of purging medicines to be taken, if the patient has not two stools a day; so that the contents of the bowels being retained is another indication: and what is very curious, it seems very immaterial with you whether the patient takes hemlock in a mixture, or in powder, bolus, or pills; and yet, if what we have said about sugar, vegetable juice, and water fermenting be true, the mixture and the powder, &c. may be as different medicines as nitre and salt of

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worm-

wormwood; and this will be looked upon as one instance, how well you consider what effect combination may have upon the medicines you prescribe.

Of the cure of the kinkcough with worms.

The very same means is recommended in this complication as for the simple kinkcough; because a child who used to part with a great number of round worms, had some come away while it was taking this medicine (see case 11.) and, for this reason, we are to believe, that hemlock will, in such cases, often supersede the use not only of laxatives, but of any other medicines whatever in the cure of both disorders.

Of the cure of the kinkcough with a dysentery.

Hemlock is here the best remedy, because opium saved a child's life under these circumstances, when the stools had acquired a pretty natural appearance from the use of gentle vomits, laxatives, blisters, the Peruvian bark, &c. But we will ask the advice of those skilled in medicine, whether, notwithstanding the idle theory about the hemlock removing clotty feculent accumulations lurking in the guts, either it or opium can be given with safety, without previous evacuations, or purging medicines joined along with them? Hemlock is allowed to act the part of an astringent in diarrhoeas; and will it not, if the advice here given is pursued, confine the *fomes morbi* in the intestines,

intestines, and for the most part be the death of the patient?

The cure of the kinkcough with dentition.

In this variety too hemlock is to be depended upon, because, if both diseases are urgent, by lancing the gum you relieve the patient.

The cure of the kinkcough with an ague.

Again, hemlock is the *factotum*, because "it does not appear that the bark was more efficacious than hemlock in poor HELE's case" (17); only that the bark shift intirely removed the ague, which was not cured while the hemlock was depended on as a febrifuge. Indeed, on the ninth of March it appears from the case, that she had neither ague nor fever, but on the tenth it returned; and on the twelfth, things were in such a state, that recourse was immediately had to the bark shift, and opium, with a good effect. But supposing the ague fit to be removed for a little time previous to the use of the bark, why is this to be attributed to hemlock? The child's belly was hard and full at the onset of the disease; magnesia and sal polychrest were joined with hemlock, and purged the patient: and have not agues thus circumstanced been cured by purging medicines? There is scarce a practitioner living who has not cured the ague, accompanied with a big belly in children, with a few doses of calomel and jalap; and so powerful a medicine is sal polychrest and rhubarb in this very case, that Dr. William

Fordyce is of opinion, he might have made a fortune by using it as a nostrum; and I am astonished that any man should have his head so turned, as to draw a conclusion in favour of hemlock from such premises; and what is worse, poor **HELE** is dead, perhaps because earlier recourse was not had to the bark.

Of the kinkcough with the small-pox; which we have already taken notice of.

Of the cure of the kinkcough with the measles,

Which you have never treated, and therefore your recommendation of hemlock in this case does not require any comment. And we shall hereafter mention a plain fact, which may perhaps determine whether it or other medicines ought to have the preference in cases of pregnancy*.

The corollaries we shall hereafter have occasion to refer to; and as to the preparations of hemlock we think them unnecessary, because we have already much safer and better medicines of the same class. Indeed it may be much questioned, whether your stewing this medicine over the fire does not render it nearly effete †; for a surgeon

* See page 37 forward.

† People in Derby say, the smell arising from the Cicuta while it is over the fire is so offensive, as to be a common nuisance. Must not then its most volatile parts fly off? and does not the chief effect of the hemlock pill arise from the powder of hemlock, which happily for the patient is only one fifth of the whole? See case in the Essay where the patient took powdered hemlock.

gave

gave some of the extract a considerable time without the least alteration in the patient, but a few spoonfuls of the juice of hemlock being taken had a most violent and dangerous effect; and, though you are willing to have it believed, that you have availed yourself of the rule given by CELSUS, yet you have not proved that hemlock cures the kinkcough safely, certainly, expeditiously, and pleasantly, or even that it cures it at all. I shall, therefore, take the liberty of instructing you in the use and abuse of this medicine; and if a mind which cannot bear contradiction, should become boisterous upon this occasion, we will, as time and opportunity permit, explain and amend any representations in these animadversions that may displease you; and, perhaps, we may be able to present you with a dialogue from the dead betwixt SOCRATES, HELE, and TOPLIS, who all had, while living, sufficient experience of the medicine you so earnestly recommend, and who went out of the world nearly in the same manner.

I am, Sir,

Your most humble servant,

Dec, 31st, 1773.

The AUTHOR.

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 time and opportunity permit, explain and amend
 any representations in these animadversions that
 may displease you; and, perhaps, we may be able
 to present you with a dialogue from the death-bed
 of Socrates, Heraclitus, and Iphigeneia, who all had
 while living, sufficient experience of the medicine
 you so earnestly recommend, and who went out
 of the world nearly in the same manner.

I am, Sir,

Your most humble servant,

Dec 21st, 1773.

The Author.

attending these children where the disorder took

place, we shall learn in regular progress, and

hence we shall learn in regular progress, and

these we had many opportunities of seeing, as the

common people know, that the disorder com-

monly wears off of itself in time, were not less

conscious about medical assistance, but relied on

such simple remedies as themselves thought best

proper.

Early in the spring, which was moist and very

cold, many children in the space of four or five

months found this place were seized with the hooping-

cough, and sometimes the

same kind of indigestion as accompanies taking

cold, but look after every child, and

if they had the hooping-cough, and

loaded with a large quantity of phlegm, which

in some became indigestion.

Dr. MILLAR's late observations on the hooping-

cough, where they will find that physicians be-

fore the days of Dr. B——, had employed suc-

cessfully some of their thoughts on the nature and

cure of this disorder; and the following short

Essay is intended to shew whether the method and

medicines they recommend, or that advised by

Dr. B——, is most likely to relieve the pa-

tient.

For this purpose, we will begin by taking an

abstract from notes made in 1749, when the

hooping-cough prevailed in this place and neigh-

bourhood; and we chuse to relate the symptoms

attend-

attending those children where the disorder took its course without help from medicine, as from hence we shall learn its regular progress, and these we had many opportunities of seeing, as the common people knowing that the disorder commonly wears off of itself in time, were not solicitous about medical assistance, but relied on such trifling remedies as themselves thought most proper.

Early in the spring, which was moist and very cold, many children in the space of four or five miles round this place were seized with the whooping-cough, about the same time, which first began with a little dry cough, and sometimes the same kind of indisposition as accompanies taking cold, but soon after rosy phlegm was coughed up. After this the lungs and stomach were daily loaded with a larger quantity of phlegm, which in some became immoderate.

After some, or all of this phlegm was discharged by a fit of coughing and vomiting, the child became easy till a sufficient quantity was again accumulated to excite another fit of coughing, &c. during which, strong children often bled at the nose, and were black in the face: the phlegm discharged was sometimes streaked with blood, and the countenance in a little while acquired a lipo-phlegmatic appearance.

Those children who had sense enough to spit out the phlegm at the time of coughing, got safely over the disorder; sometimes, where it was not very troublesome, in about six weeks; where more violent,

violent, in about two months, and sometimes it was three months, or longer, before it terminated. But some younger children fared not so well, for instead of throwing the phlegm out of their mouth they swallowed it; a griping and loose stools followed, and all the parts about the anus were excoriated. At this time they became dry, had a quick small pulse, and all the other symptoms accompanying a fever. They now daily got weaker, their legs and body became more or less œdematous, the cough gradually ceased, the difficulty of breathing became more urgent, sleepiness, &c. came on; and when the parents thought their children getting better, death convinced them of their mistake, by closing the scene with all the symptoms of a *spurious peripneumony*.

During the progress of this disease it often happened in different parts of the neighbourhood, that the cough was better for two or three days*, and then returned again with its usual violence, but towards the latter part of summer it wholly disappeared.

These symptoms give us every reason to conclude, with other writers, that the disorder is caused by some morbid disposition of the air, be-

* "It is worthy of remark, that the convulsive cough in Edinburgh, after being milder in January 1735, suddenly became much worse in the first week in February, and continued so the greater part of that month, gradually decreasing afterwards as the spring and summer advanced." Ed. Med. Eff. vol. iv.

cause not only one, but many children several miles asunder were seized nearly at the same time. Nor can we account for the sudden abatement and return of the cough, but from sudden alterations in this element. Perhaps it becomes replete with miasma, which render the serous and lymphatic juices acrid; whence a larger quantity of them than ordinary is secreted in consequence of their irritating the vessels which secrete them; or perhaps the air may have the power of weakening the muscular fibres, and of rendering the fluids viscid and ropy. But Dr. B—— says, miasms irritate the mucous glands alone, and cause a greater secretion of viscous matter.

In support of the first of these opinions, it may be said, that whenever the serous or lymphatic juices are extravasated, and deposited in any cavity in the body, they become viscid and ropy, witness the lymph which stagnates in the nose; and why, therefore, will not lymph become ropy in the same manner, when a greater quantity than ordinary is deposited upon the lungs in the stomach and in the intestines?

In support of the second opinion, it may be said, that we know a particular state of the air under a lax habit, and such are children, will render the lymph ropy, witness the spurious peripneumony which children we see in this disorder fall into when the offending matter is not expelled in coughing. And in favour of both these opinions it may be said, the disease is not confined to the lungs, or to the alimentary canal, but that

It is extended to the whole body; the fibres in general being relaxed, and an oedematous appearance evinces, that the lymph in general has acquired a pituitous disposition*; and, besides, it does not appear that mucus but thickened lymph is discharged.

In support of the last opinion, nothing can be said till we are certain that it is mucus alone which is discharged in the fit of coughing, and then there could be no doubt but in this disease the mucous glands are chiefly first affected. These different opinions we mention to shew what uncertainty there is in fixing the manner in which the immediate cause of this disorder acts, and what parts of the body are first affected; and, therefore, all the plain truth we can collect is, that in consequence of a particular state in the air, the stomach and lungs are loaded with a tough viscid phlegm, and that there is a weakness and a general tendency to relaxation in the fibres, and to a ropy disposition of the lymph and serum; that an affection of the stomach and lungs is the immediate cause of the cough, because the patient immediately becomes easy by vomiting and expectoration.

That the lungs and stomach are chiefly, and more immediately affected in the first stage of the

* Some writers have asserted, that the juices never acquire this disposition; they should have added while they were circulating in the vessels; for upon dissecting an oedematous leg, I found the fluids which had stagnated in the cellular membrane glairy and resembling the white of an egg.

disease than the intestines, seems to be plain, because the phlegm does not wholly pass off by stool, but is discharged by the mouth. Besides, when it is not evacuated upwards, a new train of symptoms will arise; for accumulating in the stomach, it passes into the intestines, putrifies, and becomes very acrid; and the question is, whether if the intestines were the primary seat of the disease, this putrefaction and a consequent diarrhæa would not always take place, and whether the phlegm would not all pass downward instead of upward? Whereas the truth is, unload the stomach and lungs as often as an accumulation of viscid phlegm takes place, and the bowels will not seem to be much affected.

However, it is not matter of much consequence in practice, whether phlegm first resides in the stomach or intestines, as the whole alimentary canal from its connection must be more or less affected with phlegm *during* the progress of the disease; and seeing that the patient becomes easy upon its being discharged, and that a general weakness and visciduity prevails, the true intentions of the cure must be, to clear repeatedly the lungs and *primæ viæ*, to attenuate viscid phlegm, to invigorate the blood, and to preserve the strength of the solids; and, by taking a view of preceding writers, we shall find, that the medicines which have answered these ends, have been found most serviceable in curing this disorder *.

* If this hereafter appears to be true, those who insist on hemlock's being a specific, because it is antispasmodic, do not seem to have seen this matter in its true light.

Vomits and purges, and medicines which both vomit and purge, have been recommended as principal remedies; and can there be any doubt of these medicines relieving the patient, as they take away the immediate cause of the cough? General consent evinces, that blisters, or cantharides taken inwardly, have here been remarkably serviceable; and the cure of the whooping-cough, by inoculation for the small-pox, also shew that attenuants are proper assistants in the cure. And do not all agree, that the bark is in this case a most useful medicine?

Nevertheless, particular symptoms require farther assistance, till these medicines have had time to act upon and remove the disease itself, the principal of which is the cough; and this Dr. B—— has, with great deliberation, declared to be nervous and spasmodic. We shall, therefore, for the information of this gentleman, observe, that there is an increased degree of irritability in the nerves in every cough, though but of short standing; that all coughs are brought on by the nerves of particular parts being irritated; and that, in consequence, a spasm of the diaphragm, and other muscles subservient to respiration, follow to shake off and expel the irritating matter, by an increased force of the air which passes out of the lungs in respiration*. So that every cough is a convul-

* Those who have read Hoffman, &c. are well acquainted with this doctrine; but they will please to remember, that I am not attempting to instruct those who have enquired properly into the nature of coughs.

five cough, and only differs from the hooping-cough in its degree of violence; for, though in this last there is a vomiting and coughing mixed, yet when we reflect upon the action of coughing, and the parts concerned, we shall discover it to be a minor vomiting, and that of course a deeper inspiration and greater force in coughing will ensue, when the cause is seated in the stomach than when it only resides about the lungs.

Nevertheless, there is a difference in the nature of the cause of coughs, some being entirely the consequence of irritated matter, while others arise from a disease in the nerves themselves, which render them so very irritable that a fit of coughing comes on from any slight accident that may happen to effect the nerves of the lungs*; but the cough of which we are now treating, is acknowledged to arise from the former of these causes. Nor could it ever be cured by irritating medicines if it was entirely nervous; and we shall, therefore, proceed to observe, that every cough is an effort of nature to expel the irritating matter, and though, when violent, it may always be mitigated with safety and advantage, yet wherever it is accompanied with an accumulation of phlegm, or the like, it ought never to be suppressed intirely, unless we can also at the same time remove this preternatural flux. "Opiates rather did hurt in the

* This kind of cough is cured by removing the cause of the disease in the nerves, and by medicines which have a power of taking off increased irritability, such as myrrh, gum ammoniacum, opium, camphire, bark, and the like.

“hooping-cough which raged at Edinburgh in 1734,” probably because they were given in the usual dose, and caused a retention of that phlegm which would have been discharged, if the coughing had not been much suppressed. Poor TOPLISS * had his cough suppressed by hemlock, which is an opiate; and he died of his other complaints, in same manner probably as those children we have taken notice of, where the cough was suppressed by weakness *and an overload of phlegm.*

Nevertheless, when we give only one, two, or three drops of laudanum in a day, without entirely suppressing the cough, it sufficiently lessens the irritability of the whole habit, and gives the patient relief, by preventing the nerves from being so violently affected. Dr. Hillary says, “a little *syr. mecon. or elix. paregoric.*” (joined with other medicines), seldom fails to render the disease more moderate, and in time takes it off: and the only deficiency I can see in the practice of physicians in general is, that they have omitted to join *very small doses* of opium along with the medicines they have given to remove the cause of the disease. Whereas Dr. B—— gives an opiate joined to purges; for we shall presently shew, that hemlock, by his manner of mixing it, may be converted into a purge; and when this does not happen, he joins other purges along with it, so that while he is crying up hemlock as a specific,

* See case xviii. p. 131.

he is in a great measure carrying off the disease by medicines recommended by former writers.

We have already observed the necessity of keeping the *primæ viæ* and lungs clear of phlegm, and this we are not to expect from hemlock, unless by accident, for though it sometimes purges, "yet" "it often does not sensibly affect any secretion;" and, therefore, is not in this case to be solely depended upon. When it is just mixed with sugar and water, or given in extract or powder, it, like other opiates, stops immediate secretion, and promotes sweat; but when the hemlock mixture has stood till it ferments, it opens the bowels in the same manner as sugar-candy and the juice of penny-royal when they have stood together some time, so that this purgative quality is not inherent in hemlock, but arises from its being in a state of fermentation; nor does it any way appear that it has an attenuating property, or that it is capable of invigorating the blood and solids, or of unloading the lungs when they are overcharged with phlegm; whence, though hemlock like opium may suppress the cough and vomiting, yet the disorder is long in terminating under its use*, because it is destitute of other properties which are necessary to complete a cure. Peripneumonic symptoms, bleeding at the nose and eyes, and the phlegm being streaked with blood, are surely symptoms which sometimes require the use of the

* The patients would probably have been well in the same time if they had not taken any medicines at all.

lancet, admitting it to protract the disease, for as hemlock, by Dr. B——'s own account, is a week at least in making a cure, may not in this time a rupture of a vessel in the lungs or brain happen, and destroy the patient? It is confessed, that accidental bleedings have sometimes done good; and is it not amazing, that a man who has seen peripneumonic symptoms complicated with the whooping-cough, should in all cases trust the life of the patient entirely to a favourite antispasmodic?

It must evidently appear from what has been said, that various remedies will here ever be necessary; and as an opiate of some kind or other will in this cough always be a useful ingredient, it remains for us to enquire, whether small doses of laudanum or hemlock ought to have the preference. For this purpose we will relate a case or two, which have fallen under our own inspection, and the reader himself may judge which is the safest and best remedy to cure the cough by lessening irritability.

A gentlewoman having an incurable schirrus, took, by the advice of two eminent physicians, seven grains of hemlock twice a day, which in a little time brought on an itching of the whole body. This was succeeded by innumerable small blisters, attended by a very angry kind of inflammation, pain, and soreness; but upon leaving off this medicine these symptoms entirely disappeared.

Another lady took fourteen grains of the leaves of hemlock made into a powder twice a day, and

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a poultice of the same herb was applied to an indolent tumour, occasioned by milk stagnating in the upper part of her breast; the same kind of itching and blisters we have mentioned followed, accompanied by an inflammation resembling a malignant erysipelas, which swelled her more or less all over, but in particular her head; her eyes were affected; she sometimes complained of a vertigo; the breast, upon which the poultice was laid, was spread over with fiery eruptions, and indeed her whole body seemed to be poisoned. She was full of pain, had restless nights, and a fever; but upon leaving off this dangerous remedy, and taking proper remedies, she narrowly escaped death, and was restored to perfect health. I have seen other similar cases; but, perhaps it may be said, it does not often produce these effects, which must be owing to some idiosyncrasy in these patients. Be it so; but may not this idiosyncrasy happen in a child, the darling of a tender mother; and would not a premature death thus brought on be inexcusable*, when a drop or two of laudanum; or a few drops of the elixir paregoricum, will effectually ease the cough, by lessening increased irritability, without the least degree of hazard or inconvenience?

Dr. BURTON, in order attenuate and dissolve the phlegm, to corroborate and strengthen the fibres, and to prevent any farther viscidities, after

* Can this medicine then be given always with safety in pregnant women?

clearing

clearing the *primæ viæ* with oxymel of squills and deterfive purges, gave a medicine composed of *cantharides*, *camphire*, and *extract of bark*. "By this medicine," says he, "I performed the cures very soon, some in five or six days, as I can produce many vouchers to witness*; particularly Mr. Dent, apothecary in Selby, who has used it in the present epidemic chincough, according to my prescription;" which is in a much shorter time than Dr. B——r pretends to have cured by his method; and I can easily believe what Dr. Burton says to be true, because *tincture of cantharides* alone has cured this disorder. Because camphire, which the doctor added to correct the cantharides, lessens increased irritability; and because I have seen bark and attenuants equally successful in a more advanced period. For my own part, I have in some measure followed Dr. Burton's method in the first stage of the disease, except, that instead of cantharides I have chosen antimony as an attenuant, and I have given laudanum in very small doses† for the purpose already mentioned.

* Dr. B—— has only two to vouch for him, here are many.

† The rule is to give as much laudanum as will lessen the cough without suppressing of it intirely; one drop I find is commonly enough for the purpose, taken in the space of twenty-four hours in a child of half a year old; two drops in one of a year old; three drops, two or three years old; four drops, four years old, &c. but it is not necessary to continue increasing the dose according to the age of the patient, a less quantity, in proportion, being sufficient, which is probably owing to the very irritable state of young children.

If the child is plethoric and bleeds at the nose, or if the phlegm discharged is streaked with blood, I take some blood away from the arm to prevent any farther rupture of the vessels. But I agree with Dr. Burton and others, that blood must be taken away with great caution; for, as we see this disorder renders the fibres weak, and the juices ropy, so bleeding, by still weakening them, will increase the complaint, and therefore, too large a discharge of blood will be greatly injurious. Only so much blood must be then taken away as is sufficient to prevent a rupture of the vessels, and this must be judged from the violence of the cough, together with the strength of the patient.

Where the stomach, &c. are much loaded, I give a vomit of oxymel of squills, or rather some of the preparation of antimony; afterwards the child is purged gently every day with rhubarb and sal polychrest; and, at the same time, is taken three or four times a day, a dose proportioned to the strength and age of the patient, of a medicine composed of the bark decoction, essence of antimony, syrup of pennyroyal, and laudanum, which very soon lessens, and shortly intirely removes the whole of this complaint.

Where the child is very young, a medicine composed of syrup of pennyroyal, essence of antimony, and laudanum, will be more readily got down; and provided the syrup is made of expressed juice without boiling, and given while it is in a fermenting state, it will purge sufficiently; and, I will venture to affirm, sooner relieve the patient than the
poison

poison with which the malefactors of the Athenians were destroyed; and if the child wears at the same time a bark shift, a complete cure will soon be the consequence; though it may be sometimes requisite to add oxymel to this mixture, where a quantity of phlegm upon the lungs makes its use necessary.

Hitherto then we have only considered the cure of the first stage of the disease, and shall now proceed to the second, which generally arises from neglect in not clearing the *primæ viæ* by art, when the efforts of nature to expel the offending matter by the mouth are not accomplished.

In this stage we have full evidence, that the lungs, the stomach, and the intestines are all affected, because a spurious peripneumony invades the little patient, at the same time that the phlegm, which passes from the stomach into the intestines, brings on a diarrhoea that may end in a dysentery, if the child happens to live. Nevertheless, this symptom is not without its advantages, where the child happens to be troubled with worms, for the matter which causes it is a most powerful vermifuge. The mucus with which children's bowels are lined, is a proper nidus for the breeding and increase of these vermin; and there is not any thing more powerfully dissolves and destroys this asylum than putrid matter, when they are expelled along with the fæces.

The coming away of worms is often the consequence of inoculation, when the variolous matter has contaminated the whole mass of humours, and

and part of it enters the intestines. A boy accidentally broke a penknife blade in the nates, where part of it remained some time, and formed a sinous ulcer, which collected and retained a considerable quantity of matter, that became putrid by stagnation. The more active parts of this matter being absorbed, brought on a diarrhoea, in which an incredible number of worms both dead and living came away, and thus entirely cured the lad of a disease under which he had long laboured. I could indeed produce many similar instances, but these are sufficient to shew those unacquainted with these things, that the slimy matter which comes away in fevers is not the skins of dead worms; nor are we to believe, without farther evidence, that the child has the worms, but that it is the mucus of the intestines set at liberty by putrid matter, and then discharged in the common manner.

However, though we look upon putrid matter in the intestines as a remedy in some cases, we are not to forget that it is a disease; and, therefore, rhubarb and spermaceti should be given as often as necessary, to clear the bowels, which may afterwards be defended from acrid matter, and healed by taking starch, mutton suet dissolved in milk, or the pulv. c. chele. e. and spermaceti mixed; and the common saline julep, with essence of antimony in it, will be found serviceable in abating the fever: but above all things, blisters are most useful, for when the load of phlegm upon the lungs has been excessive great, the cough ceased, and

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an œdema has appeared all over the body. I have frequently seen, after they have discharged a little, the cough return with a large expectoration of phlegm, and the little patient thereby snatched from the jaws of death. Nevertheless, medicines proper for the spurious peripneumony may, if needful, here take place; and when the fever is abated, and the difficulty of breathing removed, the blood and fibres must be invigorated, by having recourse to the bark, to which bees wax or spermaceti may be added, if an excoriation of the bowels still require their use. But if the whooping-cough does depend upon some peculiar disposition in the air, surely the child should be removed into an air where this disposition does not prevail, any thing said to the contrary notwithstanding.

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T I N T